

ABSTRACT OF THE DISCLOSURE

This invention is related to a composition of matter useful for sequestering target metal-ions from an environment , said composition comprising a polymer and derivatized nanoparticles comprising inorganic nanoparticles

5 having an attached metal-ion sequestrant, wherein said inorganic nanoparticles have an average particle size of less than 200 nm and the derivatized nanoparticles have a stability constant greater than 10^{10} with iron (III).